

II. AMENDMENTS TO THE CLAIMS

This Listing of the Claims will replace all prior versions, and listings, of claims in the present application:

1. **(Currently Amended)** A method for purifying sequencing reaction product by removing unincorporated dye terminators from a sequencing reaction, comprising:

- a)** providing sequencing reaction product **having unincorporated dye terminators;**
- b)** providing at least one ultrafiltration membrane having at least one surface;
- c)** providing a solution comprising an amount of guanidine **less than 5 mM** effective for removing **the** unincorporated dye terminators from said sequencing reaction;
- d)** introducing said sequencing reaction product and said solution to said at least one surface of said ultrafiltration membrane; **and**
- e)** applying a driving force to said ultrafiltration membrane to produce purified sequencing reaction product by removing unincorporated dye terminators from the sequencing reaction product.

2. **(Previously presented)** The method of claim 1, further comprising resuspending said purified sequencing reaction product in a low ionic solution.

3. **(Previously presented)** The method of claim 2, further comprising transferring said resuspended sequencing reaction product to a substrate for sequencing.

4. **(Canceled)**

5. **(Canceled)**

6. **(Canceled)**

7. **(Canceled)**

8. **(Canceled)**

9. **(Canceled)**

10. **(Canceled)**

11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)
15. (Canceled)

16. (Previously presented) The method of claim 1, wherein said solution comprising an amount of guanidine further comprises EDTA.

17. (Previously presented) The method of claim 1, wherein said solution comprising an amount of guanidine further comprises dye terminators.

18. (Canceled)
19. (Canceled)

20. (Currently Amended) The method of claim 1, wherein said amount of guanidine is from about 0.5 mM ~~about 10~~ to less than 5 mM.

21. (New) The method of claim 1, wherein said amount of guanidine is from about 0.5 mM about 1 mM.

22. (New) The method of claim 1, wherein in step (e) the driving force is maintained until the purified sequencing reaction product is filtered to dryness such that no visible fluid remains.

23. (New) The method of claim 1, wherein in step (d) the guanidine wash solution is added onto the ultrafiltration membrane surface prior to the addition of the sequencing reaction product onto the ultrafiltration membrane surface.

24. (New) The method of claim 1, wherein in step (d) the guanidine wash solution is added onto the ultrafiltration membrane surface after to the addition of the sequencing reaction product onto the ultrafiltration membrane surface.

25. (New) The method of claim 2, wherein the low ionic solution is selected from the group consisting of water, formamide and mixtures thereof.
26. (New) The method of claim 1, wherein in step (d) the ultrafiltration membrane has a molecular cutoff between about 1,000 and 30,000 Daltons.
27. (New) The method of claim 1, wherein in step (d) the ultrafiltration membrane has a molecular cutoff between about 3,000 and 15,000 Daltons.
28. (New) The method of claim 1, wherein in step (d) the ultrafiltration membrane comprises a material selected from the group consisting of polyamides, polysulphones, polyethersulphones, polyarylsulphones, cellulose, regenerated cellulose, polyvinylidene fluoride and combinations thereof.
29. (New) The method of claim 1, wherein in step (c) guanidine comprises guanidine hydrochloride.
30. (New) The method of claim 1, wherein in step (c) guanidine comprises guanidine carbonate.
31. (New) A method of removing unincorporated dye terminators from an unpurified DNA sequencing reaction product, comprising:
- a) providing at least one ultrafiltration membrane having at least one surface;
 - b) providing a wash solution comprising EDTA and an amount of guanidine or salt thereof from about 0.5 to less than 5 mM effective for removing unincorporated dye terminators from the unpurified DNA sequencing reaction product;
 - c) introducing the wash solution to the surface of the ultrafiltration membrane;
 - d) providing the unpurified DNA sequencing reaction product having unincorporated dye terminators;

e) introducing the unpurified DNA sequencing reaction product having the unincorporated dye terminators to the wash solution located on the surface of the ultrafiltration membrane; and

f) applying a driving force to the ultrafiltration membrane to remove unincorporated dye terminators from the DNA sequencing reaction product, producing a purified DNA sequencing reaction product.

32. (New) The method of claim 31, wherein in step (f) the driving force is maintained until the purified sequencing reaction product is filtered to dryness such that no visible fluid remains.

33. (New) The method of claim 31, further comprising resuspending said purified DNA sequencing reaction product in a low ionic solution selected from the group consisting of water, formamide and mixtures thereof.

34. (New) The method of claim 33, further comprising transferring said resuspended sequencing reaction product to a substrate for sequencing.

35. (New) The method of claim 31, wherein in step (d) the ultrafiltration membrane has a molecular cutoff between about 1,000 and 30,000 Daltons.

36. (New) The method of claim 31, wherein in step (c) guanidine comprises guanidine hydrochloride.

37. (New) The method of claim 31, wherein in step (c) guanidine comprises guanidine carbonate.

38. (New) A method of removing unincorporated dye terminators from an unpurified DNA sequencing reaction product, comprising:

- a) providing an unpurified DNA sequencing reaction product having unincorporated dye terminators;
- b) providing at least one ultrafiltration membrane having at least one surface;

c) introducing the unpurified DNA sequencing reaction product having unincorporated dye terminators to the surface of the ultrafiltration membrane;

d) providing a wash solution comprising EDTA and an amount of guanidine or salt thereof from about 0.5 mM to less than 5 mM effective for removing the unincorporated dye terminators from the unpurified DNA sequencing reaction product;

e) introducing the wash solution to the unpurified DNA sequencing reaction product having unincorporated dye terminators located on the surface of the ultrafiltration membrane; and

f) applying a driving force to the ultrafiltration membrane to remove the unincorporated dye terminators from the DNA sequencing reaction product, producing a purified DNA sequencing reaction product.